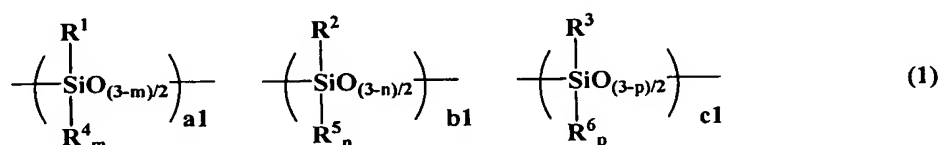


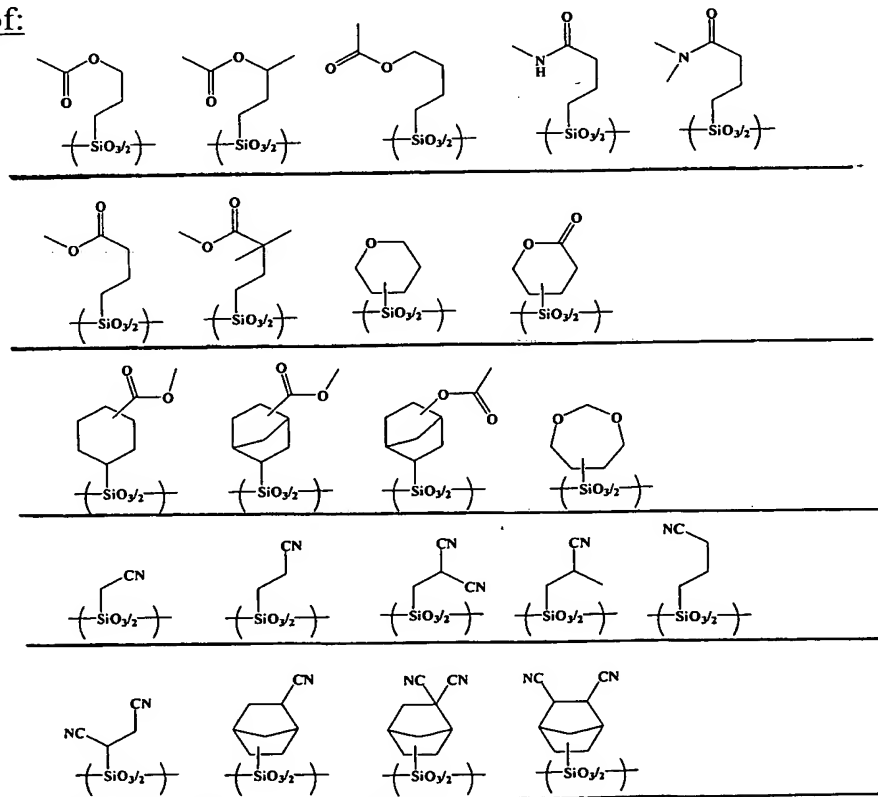
**Amendments to the Claims:**

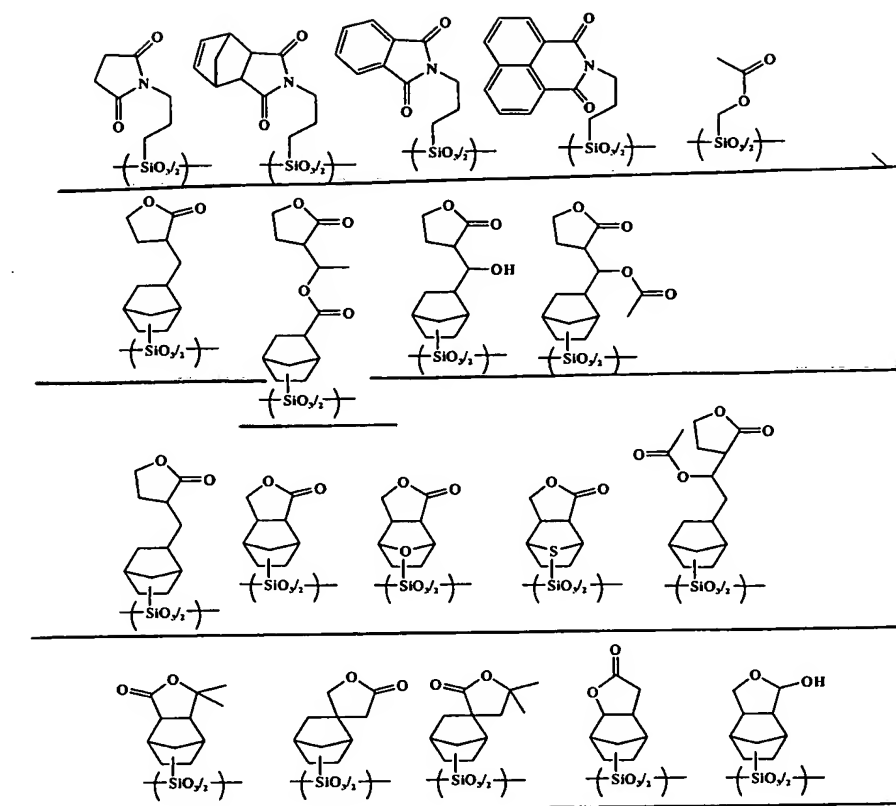
The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An anti-reflection film material used in lithography which is an anti-reflection film material used in lithography and contains at least a polymer compound having repeating units for copolymerization represented by the following general formula (1):



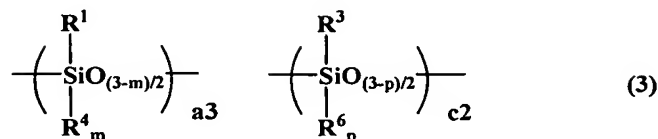
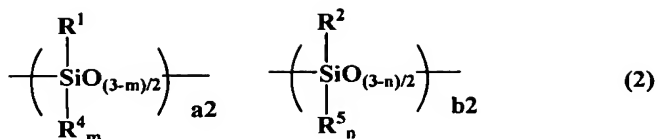
wherein  $\text{R}^1$  is a monovalent organic group having a crosslink group,  $\text{R}^2$  is a monovalent organic group having a light-absorption group, and  $\text{R}^3$  is a monovalent organic group ~~which has at least one functional group selected from the group consisting of carbonyl, ester, lactone, amide, ether, and nitrile~~ selected from the group consisting of:



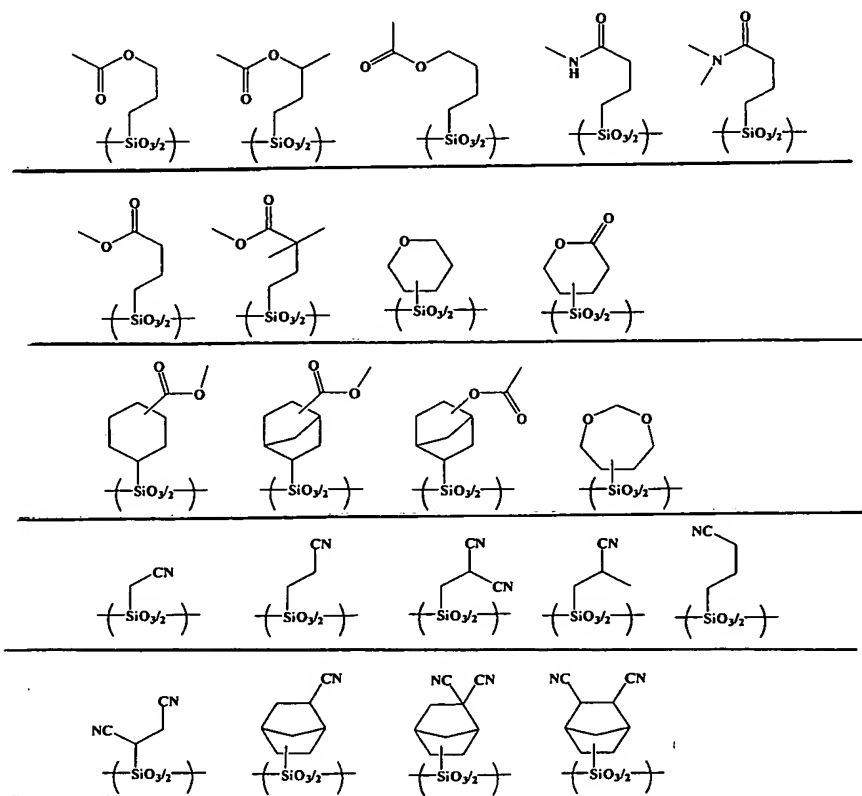


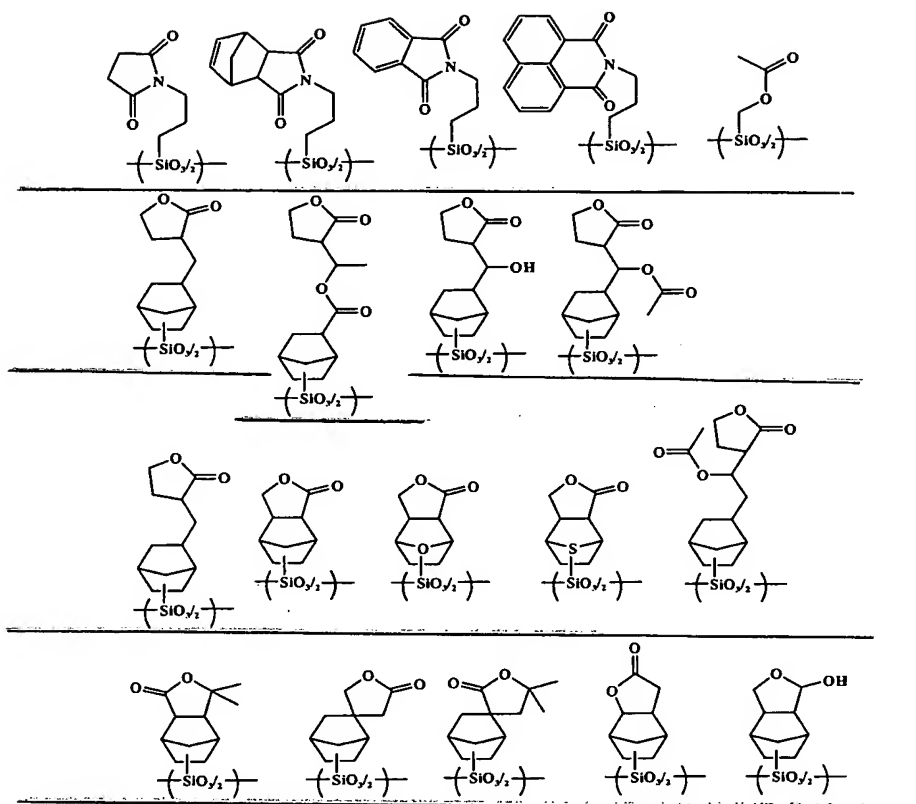
;  $a_1$ ,  $b_1$  and  $c_1$  are  $0 < a_1 < 1$ ,  $0 < b_1 < 1$ ,  $0 < c_1 < 1$ , and  $0.5 \leq a_1 + b_1 + c_1 \leq 1$ ; each of  $R^4$ ,  $R^5$  and  $R^6$  is a hydrogen atom, a hydroxy group, an alkyl group having 1-6 carbon atoms, an aryl group having 6-10 carbon atoms, or a fluorinated alkyl group having 1-6 carbon atoms; and each of  $m$ ,  $n$  and  $p$  is 0 or 1.

2. (Currently Amended) An anti-reflection film material used in lithography which is an anti-reflection film material used in lithography and contains at least a polymer compound having repeating units for copolymerization represented by the following general formula (2) and a polymer compound having repeating units for copolymerization represented by the following general formula (3):



wherein  $\text{R}^1$  is a monovalent organic group having a crosslink group,  $\text{R}^2$  is a monovalent organic group having a light-absorption group, and  $\text{R}^3$  is a monovalent organic group which has at least one functional group selected from the group consisting of carbonyl, ester, lactone, amide, ether, and nitrile selected from the group consisting of:





; each of  $R^4$ ,  $R^5$ , and  $R^6$  is a hydrogen atom, a hydroxy group, an alkyl group having 1-6 carbon atoms, an aryl group having 6-10 carbon atoms, or a fluorinated alkyl group having 1-6 carbon atoms; each of  $m$ ,  $n$  and  $p$  is 0 or 1;  $a_2$  and  $b_2$  are  $0 < a_2 < 1$ ,  $0 < b_2 < 1$ , and  $0.5 \leq a_2 + b_2 \leq 1$ ; and  $a_3$  and  $c_2$  are  $0 < a_3 < 1$ ,  $0 < c_2 < 1$ , and  $0.5 \leq a_3 + c_2 \leq 1$ .

3. (Original) The anti-reflection film material according to Claim 1 which further contains an organic solvent and/or an acid generating agent.

4. (Original) The anti-reflection film material according to Claim 2 which further contains an organic solvent and/or an acid generating agent.

5. (Original) The anti-reflection film material according to Claim 1 which further contains a crosslinking agent.

6. (Original) The anti-reflection film material according to Claim 2 which further contains a crosslinking agent.

7. (Original) The anti-reflection film material according to Claim 1 wherein the light-absorption group in the repeating unit of the polymer compound contained in the anti-reflection film material is an aromatic group or a group having a Si-Si bond.

8. (Original) The anti-reflection film material according to Claim 2 wherein the light-absorption group in the repeating unit of the polymer compound contained in the anti-reflection film material is an aromatic group or a group having a Si-Si bond.

9. (Original) A substrate which has at least an anti-reflection film obtained by baking the anti-reflection film material according to Claim 1 on the substrate.

10. (Original) A substrate which has at least an anti-reflection film obtained by baking the anti-reflection film material according to Claim 2 on the substrate.

11. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, and etching the anti-reflection film and the substrate with using as a mask the photoresist film on which the resist pattern is formed to form a pattern on the substrate.

12. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the

photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, and etching the anti-reflection film and the substrate with using as a mask the photoresist film on which the resist pattern is formed to form a pattern on the substrate.

13. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film with using as a mask the photoresist film on which the resist pattern is formed, and etching the substrate with using as a mask the anti-reflection film on which the pattern is formed, to form a pattern on the substrate.

14. (Original) A method for forming a pattern on a substrate by lithography comprising at least applying to the substrate an anti-reflection film material according to Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying to the anti-reflection film a photoresist film material and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film with using as a mask the photoresist film on which the resist pattern is formed, and etching the substrate with using as a

mask the anti-reflection film on which the pattern is formed, to form a pattern on the substrate.

15. (Original) A method for forming a pattern on a substrate by lithography comprising at least, forming an organic film on the substrate, applying to the organic film the anti-reflection film material of Claim 1 and baking the anti-reflection film material to form an anti-reflection film, applying a photoresist film material to the anti-reflection film and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film using as a mask the photoresist film on which the resist pattern is formed, etching the organic film using as a mask the anti-reflection film on which the pattern is formed, and etching the substrate to form a pattern on the substrate.

16. (Original) A method for forming a pattern on a substrate by lithography comprising at least, forming an organic film on the substrate, applying to the organic film the anti-reflection film material of Claim 2 and baking the anti-reflection film material to form an anti-reflection film, applying a photoresist film material to the anti-reflection film and pre-baking the photoresist film material to form a photoresist film, exposing a pattern circuit range of the photoresist film, developing with a developer to form a resist pattern on the photoresist film, etching the anti-reflection film using as a mask the photoresist film on which the resist pattern is formed, etching the organic film using as a mask the anti-reflection film on which the pattern is formed, and etching the substrate to form a pattern on the substrate.